

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Alex Salnik et al.

Application No.: NEW

Filed: HEREWITH

For: CHARACTERIZATION OF ULTRA
SHALLOW JUNCTIONS IN
SEMICONDUCTOR WAFERS

Group Art Unit: Unknown

Examiner: Unknown

**INFORMATION DISCLOSURE
STATEMENT**121 Spear Street, Suite 290
San Francisco, CA 94105
(415) 512-1312

M/S PATENT APPLICATION

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Applicant(s) submit(s) herewith patents, publications or other information [attached hereto and listed on the attached Form PTO-1449 (modified)] of which they are aware, which they believe(s) may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR § 1.56.

This Information Disclosure Statement:

- (a) ☒ accompanies the new patent application submitted herewith. 37 CFR § 1.97(a).
- (b) ☐ is filed within three months after the filing date of the application or within three months after the date of entry of the national stage of a PCT application as set forth in 37 CFR § 1.491.
- (c) ☐ as far as is known to the undersigned, is filed before the mailing date of a first Office Action on the merits, or before a first office action after filing a Request for Continued Examination under §1.114.
- (d) ☐ is filed after the first office action and more than three months after the application's filing date or PCT national stage date of entry filing but, as far as is known to the undersigned, prior to the mailing date of either a final rejection or a

notice of allowance, whichever occurs first, and is accompanied by either the fee (\$180) set forth in 37 CFR § 1.17(p) or a certification as specified in 37 CFR § 1.97(e), as checked below.

- (e) ☐ is filed after the mailing date of either a final rejection or a notice of allowance, whichever occurred first, and the Issue Fee has not been paid, and is accompanied by the fee (\$130) set forth in 37 CFR § 1.17(i)(1) and a certification as specified in 37 CFR § 1.97(e), as checked below. This document is to be considered as a petition requesting consideration of the information disclosure statement.

[If either of boxes (d) or (e) is checked above, the following "certification" under 37 CFR § 1.97(e) may need to be completed.] The undersigned certifies that:

- (f) ☐ Each item of information contained in the information disclosure statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement.
- (g) ☐ No item of information contained in this information disclosure statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned after making reasonable inquiry, was known to any individual designated in 37 CFR § 1.56(c) more than three months prior to the filing of this information disclosure statement.

A list of the patent(s) or publication(s) is set forth on the attached Form PTO-1449 (Modified).

A copy of the items on PTO-1449 (Modified) is supplied herewith, except as noted below.

Those patent(s) or publication(s) which are marked with an asterisk (*) in the attached form PTO-1449 (Modified) are not supplied because they are (a) either U.S. Patents and this an application filed after June 30, 2003, or (b) were previously cited by or submitted to the Office in a prior application no. _____, filed _____ and relied upon in this application for an earlier filing date under 35 U.S.C. § 120.

A concise explanation of relevance of the items listed on form PTO-1449 (Modified) is not given, except for the following:

Excerpt: "Therma-Probe 420 User Manual; Theory of Operation; Damage Relaxation (Decay Factor)."

This document is an excerpt from a User's Manual provided with the Assignee's Therma-Probe device. While the User's Manual is not a "publication," the excerpt describes one mode of operation of the Therma-Probe that has been used by customers for many years and, therefore, should be considered prior art. The concepts discussed in this excerpt have more recently been adapted for use in evaluating the completeness of the annealing process as disclosed and claimed in the accompanying patent application.

The Examiner is reminded that a "concise explanation of the relevance" of the submitted items "may be nothing more than identification of the particular figure or paragraph of the patent or publication which has some relation to the claimed invention," MPEP § 609.

While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR § 1.56, it is not intended to constitute an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

In accordance with 37 CFR § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR § 1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR § 1.98 and MPEP § 609 and the Examiner is respectfully requested to consider the listed references.

Respectfully submitted,

STALLMAN & POLLOCK LLP

Dated: March 8, 2004

By: 

Michael A. Stallman
Reg. No. 29,444

Attorneys for Applicant(s)

INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i>	Docket Number (Optional) TWI-24910	Application Number NEW
	Applicant(s) Alex Salnik et al.	
	Filing Date HEREWITH	Group Art Unit Unknown

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	*AA	4,579,463	04/01/1986	Rosencwaig et al.	374	57	05/21/1984
	*AB	4,634,290	01/06/1987	Rosencwaig et al.	374	5	11/14/1985
	*AC	4,636,088	01/13/1987	Rosencwaig et al.	374	5	05/21/1984
	*AD	5,978,074	11/02/1999	Opsal et al.	356	72	07/03/1997
	*AE	6,049,220	04/11/2000	Borden et al.	324	765	06/10/1998
	*AF	6,323,951	11/27/2001	Borden et al.	356	502	03/22/1999
	*AG	US 2002/0167326	11/14/2002	Borden et al.	327	752	03/05/2001

FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO

OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

	AH	J. Opsal et al., "Theory of the Temporal Behavior of Modulated Optical Reflectance in Silicon," <i>Digest of 5th International Topical Meeting of Photoacoustic and Photothermal Phenomena (Heidelberg, Germany)</i> , July 27-30, 1987, pp. coversheet, 103-104.
	AI	J. Opsal et al., "Temporal behavior of modulated optical reflectance in silicon," <i>J. Appl. Phys.</i> , Vol. 61, No. 1, 1 January 1987), pp. 240-248.
	AJ	A. Rosencwaig et al., "Temporal Behavior of Modulated Reflectance Signal in Silicon," from Review of Progress in Quantitative Nondestructive Evaluation, <i>Rev. Progress in QNDE</i> , Vol. 6A (1987), pp. 237-244.
	AK	A. Rosencwaig et al., "Temporal Behavior of Modulated Optical Reflectance in Silicon," Abstract submitted for the March 1986 Meeting of the American Physical Society March 31-April 4, 1986, <i>Bulletin of the American Physical Society</i> 31(3), March 1986, p. 633.
	AL	Excerpt: Therma-Probe 420 User Manual; Theory of Operation; Damage Relaxation (Decay Factor), 1 page in length. [See p. 3 of this Information Disclosure Statement for explanation]
	AM	In re U.S. Patent Application No. 10/387,259, filed March 12, 2003, entitled "Ion Implant Monitoring Through Measurement of Modulated Optical Response," by Alex Salnik et al., 17 pages in length.

Examiner	Date Considered
Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	